Notes to users:
This is the final version of the 2005 – 2009 Sustainable Forestry Initiative® (SFIS) Standard, approved by the Sustainable Forestry Board (SFB) on January 10, 2005. The language this document may not be altered. This document is for internal use only by SFI Program Participants, Licensees and Auditors.

HOW TO USE THIS DOCUMENT

NAVIGATION
This PDF version of the Sustainable Forestry Initiative (SFI) Standard incorporates clickable hyperlinks. All Index items when clicked, will link to their respective sections within the Standard.

At the end of this document you will find:

2005–2009 Edition
Sustainable Forestry Initiative (SFI) Standard

Sustainable Forestry Initiative® Standard (SFIS)

Sustainable Forestry Initiative Program

A reference document, "Sustainable Forestry Initiative® Program: Overview, Governance, Guidance, and Historical Information," contains additional information about the SFI Program and is available at http://www.aboutsfb.org.

Principles for Sustainable Forestry

Managed forests make a vital contribution to the world by providing economic, environmental, and social benefits indispensable to the quality of life. Accomplishing *sustainable forestry*, especially on private lands, requires a partnership among landowners, wood producers, contractors, and the companies that purchase wood.

Sustainably managed forests provide many benefits to society: employment for hundreds of thousands of workers, a viable tax base that supports thousands of communities, essential building and paper products, and numerous recreational opportunities. A commitment to provide these social benefits extends to promoting human health and safety; providing employee training and education; protecting air and water quality, soil, and *wildlife;* protecting unique resources; and communicating the benefits of the practice of *sustainable forestry* to the general public. The SFI Standard reflects this commitment to social responsibility through a set of *principles, objectives, performance measures,* and *indicators*.

Program Participants must comply with all portions of the SFI Standard relevant to their operations, taking into account their local conditions and circumstances and the scope and scale of their operations. In addition, the SFI Standard requires *Program Participants* to take their commitment to responsible stewardship beyond the bounds of their own lands and operations by encouraging others to adopt the *principles* and *objectives* of the SFI Standard. *Program Participants* are required to work with their suppliers to make sure they are meeting *program* goals for *best management practices*. And *Program Participants* are required to invest in research to enhance the practice of *sustainable forestry*, add to scientific knowledge, improve *forestry* practices, and increase the overall *productivity* of forests.

The SFI Standard applies to the United States and Canada, where *Program Participants* must comply with numerous federal, provincial, state, and local laws that protect the environment, their workers, and those who live in the communities in which they operate. Such laws include hundreds of thousands of rules that cover a broad range of issues. Just some of the applicable federal, state, provincial, or local forestry-related environmental laws and regulations found in the United States and Canada include the Clean Water Act, Endangered Species Act, Species at Risk Act, and state or provincial forest practice laws.

The social laws of the United States and Canada cover civil rights, equal employment opportunities, antidiscrimination and antiharassment measures, workers' compensation, indigenous peoples' rights, workers' and communities' right to know, wages and working hours, and occupational health and safety. Antitrust, business competition, and other laws in the United States and Canada outline business procedures that must be followed. The SFI Program does not try to duplicate *sustainable forestry* processes that are already mandatory in the United States and Canada. Both countries have mature legal systems that consistently discourage and punish illegal behavior. Given the wide range of due process and compliance mechanisms that ensure conformance with applicable laws, the SFI Standard purposefully focuses on continual improvement of the practice of *sustainable forestry*, forest *productivity*, and environmental performance processes that complement the existing legal framework.

In the United States and Canada, family forestland owners play a significant role in supplying wood fiber to the wood products industry. In the United States, more than 10 million such owners account for 60% of the forestland and more than 50% of the raw materials used by *Program Participants.* The percentage of family forestland owners in Canada is smaller, but in some areas these owners provide a large share of the raw materials used by *Program Participants.* These family forestland owners need stable and predictable laws, standards, and business practices.

Program Participants both support *sustainable forestry* practices on forestland they manage and promote it on other lands. Moreover, *Program Participants* support efforts to protect private property rights and the ability of all private landowners to manage their forestland sustainably. This support stems from *Program Participants'* belief that forest landowners have an important stewardship responsibility and a commitment to society, and they recognize the importance of maintaining viable commercial, family forest, and *conservation* forestland bases.

In keeping with this responsibility, *Program Participants* shall have a written *policy* (or *policies)* to implement and achieve the following *principles*:

1. Sustainable Forestry
To practice *sustainable forestry* to meet the needs of the present without compromising the ability of future generations to meet their own needs by practicing a land stewardship ethic that integrates *reforestation* and the managing, growing, nurturing, and harvesting of trees for useful products with the *conservation* of soil, air and water quality, *biological diversity, wildlife* and *aquatic habitat*, recreation, and aesthetics.

2. Responsible Practices
To use and to promote among other forest landowners *sustainable forestry* practices that are both scientifically credible and economically, environmentally, and socially responsible.

3. Reforestation and Productive Capacity
To provide for regeneration after harvest and maintain the productive capacity of the forestland base.

4. Forest Health and Productivity
To protect forests from uncharacteristic and economically or environmentally undesirable wildfire, pests, diseases, and other damaging agents and thus maintain and improve long-term *forest health* and *productivity.*

5. Long-Term Forest and Soil Productivity
To protect and maintain long-term forest and soil *productivity*.

6. Protection of Water Resources
To protect water bodies and *riparian* zones.

7. Protection of Special Sites and Biological Diversity
To manage forests and lands of special significance (biologically, geologically, historically or *culturally important*) in a manner that takes into account their unique qualities and to promote a diversity of *wildlife habitats,* forest types, and ecological or natural community types.

8. Legal Compliance
To comply with applicable federal, provincial, state, and local forestry and related environmental laws, statutes, and regulations.

9. Continual Improvement
To continually improve the practice of forest management and also to monitor, measure and report performance in achieving the commitment to *sustainable forestry*.

Objectives for Sustainable Forestry

Some *Program Participants* own forestland, others own forestland and manufacturing facilities, and still others own manufacturing facilities only. As such,

SFIS *objectives 1–7* provide measures for evaluating *Program Participants'* compliance with the SFI Standard on forestlands they own or control through long-term leases.

SFIS *objective 8* provides measures for evaluating *Program Participants'* compliance with the SFI Standard through their *procurement* programs.

SFIS *objectives 9–13* provide measures for evaluating all *Program Participants'* compliance with the SFI Standard for research, training, legal compliance, public and

landowner involvement, management review, and continual improvement.

SFIS Objectives for Land Management

Objective 1. To broaden the implementation of *sustainable forestry* by ensuring long-term harvest levels based on the use of the *best scientific information* available.

Performance Measure 1.1. *Program Participants* shall ensure that long-term harvest levels are sustainable and consistent with appropriate *growth-and-yield models* and written plans.

Indicators:

1. A long-term resource analysis to guide forest management planning at a level appropriate to the size and scale of the operation, including
    a. a periodic or ongoing forest *inventory;*
    b. a *land classification* system;
    c. soils *inventory* and maps, where available;
    d. access to *growth-and-yield modeling* capabilities;
    e. up-to-date maps or a *geographic information system (GIS)*;
    f. recommended sustainable harvest levels; and
    g. a review of nontimber issues (e.g., pilot projects and economic incentive *programs* to promote water protection, carbon storage, or *biological diversity conservation*).
2. Documentation of annual harvest trends in relation to the sustainable forest management plan.
3. A forest *inventory* system and a method to calculate growth.
4. Periodic updates of *inventory* and recalculation of planned harvests.
5. Documentation of forest practices (e.g., planting, fertilization, and thinning) consistent with assumptions in harvest plans.

Objective 2. To ensure long-term forest *productivity* and *conservation* of forest resources through prompt *reforestation*, soil *conservation*, *afforestation*, and other measures.

Performance Measure 2.1. *Program Participants* shall reforest after final harvest, unless delayed for site-specific environmental or *forest health* considerations, through *artificial regeneration* within two years or two planting seasons, or by planned *natural regeneration* methods within five years.

Indicators:

1. Designation of all management units for either *natural* or *artificial regeneration.*

2. Clear criteria to judge adequate regeneration and appropriate actions to correct understocked areas and achieve acceptable species composition and stocking rates for both *artificial* and *natural regeneration.*
3. *Minimized* plantings of *exotic tree species* and research documentation that *exotic tree species,* planted operationally, pose minimal risk.
4. Protection of desirable or planned advanced *natural regeneration* during harvest.
5. Artificial *reforestation programs* that consider potential ecological impacts of a different species or species mix from that which was harvested.

Performance Measure 2.2. *Program Participants* shall *minimize* chemical use required to achieve management objectives while protecting employees, neighbors, the public, and the forest environment.

Indicators:

1. *Minimized* chemical use required to achieve management objectives.
2. Use of *least-toxic and narrowest-spectrum pesticides* necessary to achieve management objectives.
3. Use of pesticides registered for the intended use and applied in accordance with label requirements.
4. Use of *integrated pest management* where feasible.
5. Supervision of forest chemical applications by state-trained or certified applicators.
6. Use of *best management practices (BMPs)* appropriate to the situation; for example,
    a. notification of adjoining landowners or nearby residents concerning applications and chemicals used;
    b. appropriate multilingual signs or oral warnings;
    c. control of public road access during and immediately after applications;
    d. designation of streamside and other needed buffer strips;
    e. use of positive shutoff and minimal-drift spray valves;
    f. aerial application of forest chemicals parallel to buffer zones to *minimize* drift;
    g. monitoring of water quality or safeguards to ensure proper equipment use and *protection* of streams, lakes, and other water bodies;
    i. appropriate storage of chemicals;
    j. filing of required state reports; or
    k. use of methods to ensure protection of *threatened and endangered* species.

Performance Measure 2.3. *Program Participants* shall implement management practices to protect and maintain forest and soil *productivity.*

Indicators:

1. Use of soils maps where available.

2. Process to identify soils vulnerable to compaction and use of appropriate methods to avoid excessive soil disturbance.
3. Use of erosion control measures to *minimize* the loss of soil and site *productivity.*
4. Post-harvest conditions conducive to maintaining site *productivity* (e.g., limited rutting, retained down woody debris, *minimized skid trails*).
5. Retention of vigorous trees during partial harvesting, consistent with silvicultural norms for the area.
6. Criteria that address harvesting and site preparation to protect soil *productivity.*
7. *Minimized* road construction to meet management objectives efficiently.

Performance Measure 2.4. *Program Participants* shall manage so as to protect forests from damaging agents, such as environmentally or economically undesirable wildfire, pests, and diseases, to maintain and improve long-term *forest health, productivity* and *economic viability.*

Indicators:

1. *Program* to protect forests from damaging agents.
2. Management to promote healthy and productive forest conditions to *minimize* susceptibility to damaging agents.
3. Participation in, and support of, fire and pest prevention and control *programs.*

Performance Measure 2.5. *Program Participants* that utilize *improved planting stock,* including trees derived through *biotechnology,* shall use sound scientific methods and follow all applicable laws and international protocols.

Indicator:

1. *Program* for appropriate research, testing, evaluation, and deployment of *improved planting stock,* including trees derived through *biotechnology.*

Objective 3. To protect water quality in streams, lakes, and other water bodies.

Performance Measure 3.1. *Program Participants* shall meet or exceed all applicable federal, provincial, state, and local water quality laws and meet or exceed *best management practices* developed under U.S. Environmental Protection Agency–approved state water quality programs or other federal, provincial, state, or local programs.

Indicators:

1. *Program* to implement state or provincial *BMP*s during all phases of management activities.
2. Contract provisions that specify *BMP* compliance.
3. Plans that address wet-weather events (e.g., *inventory* systems, wet-weather tracts, definitions of acceptable operating conditions).
4. Monitoring of overall *BMP* implementation.

Performance Measure 3.2. *Program Participants* shall have or develop, implement, and document *riparian protection* measures based on soil type, terrain, vegetation, and other applicable factors.

Indicators:

1. *Program* addressing management and *protection* of streams, lakes, and other water bodies and *riparian* zones.
2. Mapping of streams, lakes, and other water bodies as specified in state or provincial *BMPs* and, where appropriate, identification on the ground.
3. Implementation of plans to manage or protect streams, lakes, and other water bodies.
4. Identification and protection of *nonforested wetlands*, including bogs, fens, vernal pools, and marshes of significant size.
5. Where regulations or *BMPs* do not currently exist to protect *riparian* areas, use of experts to identify appropriate *protection* measures.

Objective 4. To manage the quality and distribution of *wildlife habitats* and contribute to the *conservation* of *biological diversity* by developing and implementing *stand*- and *landscape*-level measures that promote *habitat* diversity and the *conservation* of forest plants and animals, including *aquatic fauna*.

Performance Measure 4.1. *Program Participants* shall have programs to promote *biological diversity* at *stand* and *landscape* levels.

Indicators:

1. *Program* to promote the *conservation* of native *biological diversity,* including species, *wildlife habitats,* and ecological or natural community types, at *stand* and *landscape* levels.
2. *Program* to protect *threatened and endangered* species.
3. Plans to locate and protect known sites associated with viable occurrences of *critically imperiled* and *imperiled* species and communities. Plans for *protection* may be developed independently or collaboratively and may include *Program Participant* management, cooperation with other stakeholders, or use of easements, *conservation* land sales, exchanges, or other *conservation* strategies.
4. Development and implementation of criteria, as guided by regionally appropriate science, for retention of *stand*-level *wildlife habitat* elements (e.g., snags, mast trees, down woody debris, den trees, nest trees).
5. Assessment, conducted individually or collaboratively, of forest cover types and *habitats* at the individual ownership level and, where credible data are available, across the *landscape*, and incorporation of findings into planning and management activities, where practical and when consistent with management objectives.
6. Support of and participation in plans or *programs* for the *conservation* of *old-growth forests* in the region of ownership.

7. Participation in *programs* and demonstration of activities as appropriate to limit the introduction, impact, and spread of invasive exotic plants and animals that directly threaten or are likely to threaten native plant and animal communities.
8. *Program* to incorporate the role of prescribed or natural fire where appropriate.

Performance Measure 4.2. *Program Participants* shall apply knowledge gained through research, science, technology, and field experience to manage *wildlife habitat* and contribute to the *conservation* of *biological diversity.*

Indicators:

1. Collection of information on *critically imperiled* and *imperiled* species and communities and other *biodiversity*-related data through forest *inventory* processes, mapping, or participation in external programs, such as NatureServe, state or provincial heritage programs, or other credible systems. Such participation may include providing nonproprietary scientific information, time, and assistance by staff, or in-kind or direct financial support.
2. A methodology to incorporate research results and field applications of *biodiversity* and ecosystem research into forest management decisions.

Objective 5. To manage the visual impact of harvesting and other forest operations.

Performance Measure 5.1. *Program Participants* shall manage the impact of harvesting on *visual quality.*

Indicators:

1. *Program* to address *visual quality management*.
2. Incorporation of aesthetic considerations in harvesting, road, landing design and management, and other management activities where visual impacts are a concern.

Performance Measure 5.2. *Program Participants* shall manage the size, shape, and placement of clearcut harvests.

Indicators:

1. Average size of clearcut harvest areas does not exceed 120 acres, except when necessary to respond to *forest health* emergencies or other natural catastrophes.
2. Documentation through internal records of clearcut size and the process for calculating average size.

Performance Measure 5.3. *Program Participants* shall adopt a *green-up requirement* or alternative methods that provide for *visual quality.*

Indicators:

1. *Program* implementing the *green-up requirement* or alternative methods.
2. Harvest area tracking system to demonstrate compliance with the *green-up requirement* or alternative methods.
3. Trees in clearcut harvest areas are at least 3 years old or 5 feet high at the desired level of stocking before adjacent areas are clearcut, or as appropriate to address operational and economic considerations, alternative methods to reach the *performance measure* are utilized by the *Program Participant*.

Objective 6. To manage *Program Participant* lands that are ecologically, geologically, historically, or *culturally important* in a manner that recognizes their special qualities.

Performance Measure 6.1. *Program Participants* shall identify special sites and manage them in a manner appropriate for their unique features.

Indicators:

1. Use of existing natural heritage data and expert advice in identifying or selecting sites for *protection* because of their ecologically, geologically, historically, or *culturally important* qualities.
2. Appropriate mapping, cataloging, and management of identified special sites.

Objective 7. To promote the efficient use of forest resources.

Performance Measure 7.1. *Program Participants* shall employ appropriate forest harvesting technology and "in-woods" manufacturing processes and practices to *minimize* waste and ensure efficient utilization of harvested trees, where consistent with other SFI Standard *objectives*.

Indicator:

1. *Program* or monitoring system to ensure efficient utilization, which may include provisions to ensure
    a. landings left clean with little waste;
    b. residues distributed to add organic and nutrient value to future forests;
    c. training or incentives to encourage loggers to enhance utilization;
    d. cooperation with mill managers for better utilization of species and low-grade material;
    e. merchandizing of harvested material to ensure use for its most beneficial purpose;
    f. development of markets for underutilized species and low-grade wood;
    g. periodic inspections and reports noting utilization and product separation; or
    h. exploration of alternative markets (e.g., energy markets).

SFIS Objectives for Procurement

Objective 8. To broaden the practice of *sustainable forestry* through *procurement programs.*

Procurement from sources within the United States and Canada (8.1–8.4 apply)

Performance Measure 8.1. *Program Participants* shall encourage landowners to *reforest* following harvest, to use *BMPs,* and to identify and protect important habitat elements for *wildlife,* including *critically imperiled* and *imperiled* species and communities.

Indicator:

1. *Program* to supply regionally appropriate information or services to forest landowners, describing the importance and providing implementation guidance on
    a. *BMPs;*
    b. *reforestation;*
    c. *visual quality management*; and
    d. *conservation* of critical *wildlife habitat* elements, *threatened and endangered* species, and *critically imperiled* and *imperiled* species and communities.

Performance Measure 8.2. *Program Participants* shall encourage landowners to utilize the services of *qualified resource professionals* and *qualified logging professionals* in applying principles of sustainable forest management on their lands.

Indicators:

1. *Program* to promote the use of *qualified resource professionals* and *qualified logging professionals.*
2. List of *qualified logging professionals* maintained by *Program Participant*, state agency, loggers' association, or other organization.

Performance Measure 8.3. *Program Participants* shall clearly define and implement policies to ensure that mill inventories and *procurement* activities do not compromise adherence to the principles of *sustainable forestry*.

Indicators:

1. *Program* for the purchase of raw material from *qualified logging professionals, wood producers,* and *other wood suppliers*.
2. *Program* to ensure that harvests of *purchased stumpage* comply with *BMPs.*
3. *Program* to address adverse weather conditions.

Performance Measure 8.4. *Program Participants* shall monitor the effectiveness of efforts to promote *reforestation* and *BMPs*, using public or private sources of information.

Indicators:

1. A *verifiable monitoring system* to
   a. evaluate the results of promoting *reforestation* across the *wood and fiber supply area;*
   b. monitor the use of *BMPs* by *wood producers* supplying the *Program Participant*; and
   c. evaluate the results of promotion and use of *BMPs* across the *wood and fiber supply area.*
2. Use of information from the *verifiable monitoring system* to set goals to improve, over time, rates of *BMP* compliance.

Procurement by manufacturing facilities enrolled in the SFI Program from sources outside the United States and Canada (8.5 and 8.6 apply)

Performance Measure 8.5 *Program Participants* shall ensure that their *procurement programs* support the principles of *sustainable forestry,* including efforts to thwart *illegal logging* and promote *conservation* of *biological diversity.*

Indicators:

1. Process to assess the risk that the *Program Participant's procurement program* could acquire material from *illegal logging*. This process may include relying on the adequacy of legal protections in the United States and Canada, where laws against domestic *illegal logging* are enforced.
2. *Program* to address any significant risk identified under 8.5.1.
3. *Procurement* from areas outside the United States and Canada promotes *conservation* of *biodiversity hotspots* and *major tropical wilderness areas.*
4. *Program* with *direct suppliers* to promote the principles of *sustainable forestry*.
5. Knowledge about *direct suppliers'* application of the principles of *sustainable forestry.*

Performance Measure 8.6. *Program Participants* shall encourage economically, environmentally, and socially sound practices.

Indicator:

1. Process to assess the risk that the *Program Participant's procurement* takes place in countries without effective laws addressing the following:
   a. workers' health and safety;
   b. fair labor practices;
   c. indigenous peoples' rights;

d. antidiscrimination and antiharassment measures;
e. prevailing wages; and
f. workers' right to organize.

This process may include relying on the adequacy of legal protections in countries, such as exist in the United States and Canada, where laws are effective because they are in place, are enforced for wood and fiber originating in those countries, and independent legal processes are available in the case of disputes.

2. *Program* to address any significant risk identified under 8.6.1.

SFIS Objective for Forestry Research, Science, and Technology

Objective 9. To improve forestry research, science, and technology, upon which sound forest management decisions are based.

Performance Measure 9.1 *Program Participants* shall individually, through cooperative efforts, or through associations provide in-kind support or funding, in addition to that generated through taxes, for forest research to improve the health, *productivity*, and management of forest resources.

Indicator:

1. Current financial or in-kind support of research to address questions of relevance in the region of operations. The research will include some or all of the following issues:
   a. *forest health, productivity,* and ecosystem functions;
   b. chemical efficiency, use rate, and *integrated pest management;*
   c. water quality;
   d. *wildlife* management at *stand* or *landscape* levels;
   e. *conservation* of *biological diversity;* and
   f. effectiveness of *BMPs.*

Performance Measure 9.2. *Program Participants* shall individually, through cooperative efforts, or through associations develop or use state, provincial, or regional analyses in support of their *sustainable forestry programs.*

Indicator:

1. Participation, individually or through cooperative efforts or associations at the state, provincial, or regional level, in the development or use of
   a. regeneration assessments;
   b. *growth-and-drain* assessments;
   c. *BMP* implementation and compliance; and
   d. *biodiversity conservation* information for family forest owners.

SFIS Objective for Training and Education

Objective 10. To improve the practice of sustainable forest management by resource professionals, logging professionals, and contractors through appropriate training and education *programs.*

Performance Measure 10.1. *Program Participants* shall require appropriate training of personnel and contractors so that they are competent to fulfill their responsibilities under the SFI Standard.

Indicators:

1. Written statement of commitment to the SFI Standard communicated throughout the organization, particularly to mill and woodland managers, wood *procurement* staff, and field foresters.
2. Assignment and understanding of roles and responsibilities for achieving SFI Standard *objectives.*
3. Staff education and training sufficient to their roles and responsibilities.
4. Contractor education and training sufficient to their roles and responsibilities.

Performance Measure 10.2. *Program Participants* shall work closely with state logging or forestry associations, or appropriate agencies or others in the *forestry* community, to foster improvement in the professionalism of *wood producers.*

Indicator:

1. Participation in or support of *SFI Implementation Committees* to establish criteria and identify delivery mechanisms for *wood producers'* training courses that address
    a. awareness of *sustainable forestry principles* and the SFI Program;
    b. *BMPs,* including streamside management and road construction, maintenance, and retirement;
    c. regeneration, forest resource *conservation,* and aesthetics;
    d. awareness of responsibilities under the U.S. Endangered Species Act, the Canadian Species at Risk Act, and other measures to protect *wildlife habitat;*
    e. logging safety;
    f. U.S. Occupational Safety and Health Administration regulations, wage and hour rules, and other employment laws;
    g. transportation issues;
    h. business management; and
    i. public policy and outreach.

SFIS Objective for Legal and Regulatory Compliance

Objective 11. Commitment to comply with applicable federal, provincial, state, or local laws and regulations.

Performance Measure 11.1. *Program Participants* shall take appropriate steps to comply with applicable federal, provincial, state, and local forestry and related environmental laws and regulations.

Indicators:

1. Access to relevant laws and regulations in appropriate locations.
2. System to achieve compliance with applicable federal, provincial, state, or local laws and regulations.
3. Demonstration of commitment to legal compliance through *available regulatory action information.*
4. Adherence to all applicable federal, state, and provincial regulations and international protocols for research and deployment of trees derived from *improved planting stock* and *biotechnology*.

Performance Measure 11.2. *Program Participants* shall take appropriate steps to comply with all applicable social laws at the federal, provincial, state, and local levels in the country in which the Program Participant operates.

Indicator:

1. Written *policy* demonstrating commitment to comply with social laws, such as those covering civil rights, equal employment opportunities, antidiscrimination and antiharassment measures, workers' compensation, indigenous peoples' rights, workers' and communities' right to know, prevailing wages, workers' right to organize, and occupational health and safety.

SFIS Objective for Public and Landowner Involvement in the Practice of Sustainable Forestry

Objective 12. To broaden the practice of *sustainable forestry* by encouraging the public and forestry community to participate in the commitment to *sustainable forestry* and publicly report progress.

Performance Measure 12.1. *Program Participants* shall support and promote efforts by consulting foresters, state and federal agencies, state or local groups, professional societies, and the *American Tree Farm System*® and other landowner cooperative programs to apply principles of sustainable forest management.

Indicators:

1. Support for efforts of *SFI Implementation Committees*.
2. Support for the development and distribution of educational materials, including information packets for use with forest landowners.
3. Support for the development and distribution of regional or statewide information materials that provide landowners with practical approaches for addressing *biological diversity* issues, such as specific *wildlife habitat, critically imperiled* or *imperiled* species, and *threatened and endangered* species.
4. Participation in efforts to support or promote *conservation* of working forests through voluntary market-based incentive *programs* (e.g., current-use taxation programs, Forest Legacy, or *conservation* easements).
5. Program Participants are knowledgeable about credible regional *conservation* planning and priority-setting efforts that include a broad range of stakeholders. Consider the results of these efforts in planning where practical and consistent with management objectives.

Performance Measure 12.2 *Program Participants* shall support and promote, at the state, provincial or other appropriate levels, mechanisms for public outreach, education, and involvement related to forest management.

Indicators:

1. Support for the *SFI Implementation Committee* program to address outreach, education, and technical assistance (e.g., toll-free numbers, public sector technical assistance programs).
2. Periodic educational opportunities promoting *sustainable forestry*, such as
    a. field tours, seminars, or workshops;
    b. educational trips;
    c. self-guided forest management trails; or
    d. publication of articles, educational pamphlets, or newsletters.
3. Support for state, provincial, and local forestry organizations and soil and water *conservation* districts.
4. Recreation opportunities for the public, where consistent with forest management objectives**.**

Performance Measure 12.3. *Program Participants* with forest *management responsibilities on public lands* shall participate in the development of *public land* planning and management processes.

Indicators:

1. Involvement in *public land* planning and management activities with appropriate governmental entities and the public.
2. Appropriate contact with local stakeholders over forest management issues through state, provincial, federal, or independent collaboration.

Performance Measure 12.4. *Program Participants* with forest *management responsibilities on public lands* shall confer with affected indigenous peoples.

Indicator:

1. *Program* that includes communicating with affected indigenous peoples to enable *Program Participants* to
   a. understand and respect *traditional forest-related knowledge*;
   b. identify and protect spiritually, historically, or *culturally important* sites; and
   c. address the sustainable use of nontimber forest products of value to indigenous peoples in areas where *Program Participants* have *management responsibilities on public lands.*

Performance Measure 12.5. *Program Participants* shall establish, at the state, provincial, or other appropriate levels, procedures to address concerns raised by loggers, consulting foresters, employees, the public, or *Program Participants* regarding practices that appear inconsistent with the SFI Standard *principles* and *objectives*.

Indicators:

1. Support for *SFI Implementation Committee* efforts (toll-free numbers and other efforts) to address concerns about apparent nonconforming practices.
2. Process to receive and respond to public inquiries.

Performance Measure 12.6. *Program Participants* shall report annually to the SFI Program on their compliance with the SFI Standard.

Indicators:

1. Prompt response to the SFI annual progress report.
2. Recordkeeping for all the categories of information needed for SFI annual progress reports.
3. Maintenance of copies of past reports to document progress and improvements to demonstrate conformance to the SFI Standard.

SFIS Objective for Management Review and Continual Improvement

Objective 13. To promote continual improvement in the practice of *sustainable forestry* and monitor, measure, and report performance in achieving the commitment to *sustainable forestry*.

Performance Measure 13.1. *Program Participants* shall establish a management review system to examine findings and progress in implementing the SFI Standard, to make appropriate improvements in *programs*, and to inform their employees of changes.

Indicators:

1. System to review commitments, *programs*, and procedures to evaluate effectiveness.

2. System for collecting, reviewing, and reporting information to management regarding progress in achieving SFI Standard *objectives* and *performance measures*.
3. Annual review of progress by management and determination of changes and improvements necessary to continually improve SFI conformance.

Definitions

The following definitions apply to italicized words in the SFI Standard and the Audit Procedures and Qualifications.

afforestation The establishment of a forest or *stand* in an area where the preceding vegetation or land use was not forest.

American Tree Farm System® A national program that promotes the sustainable management of forests through education and outreach to private forest landowners.

aquatic fauna Animals that live on or within water during some stage of their development.

aquatic habitat An area where water is the principal medium and that provides the resources and environmental conditions to support occupancy, survival, and reproduction by individuals of a given species.

artificial regeneration The establishment of a group or *stand* of young trees created by direct seeding or by planting seedlings or plantlets.

available regulatory action information Statistics or regulatory compliance data collected by a federal, state, or local government agency. *Note:* Although conformance with laws is the intent, auditors are directed to look for a spirit and general record of compliance rather than isolated or unusual instances of deviation.

auditor A person with the competence to conduct an audit (ISO 19011:2002, 3.8).

audit firm A firm qualified to conduct a certification audit to the SFI Standard according to the standards of ISO 19011 and SFI APQ.

audit team One or more *auditors* conducting an audit, supported if needed by *technical experts* (ISO 19011:2002, 3.9).

best management practices (BMPs) A practice or combination of practices that is determined by a federal, provincial, state, or local government or other responsible entity, after problem assessment, examination of alternative practices, and appropriate public participation, to be the most effective and practicable (including technological, economic, and institutional considerations) means of conducting a forest management operation while addressing any environmental considerations.

best scientific information Available factual information that is generally accepted by the broad scientific community, including but not limited to peer-reviewed scientific

information obtainable from any source, including government and nongovernmental sources, that has been verified by field testing to the maximum extent feasible.

biodiversity hotspots A biogeographic *conservation* region with more than 1,500 endemic plant species and less than 30 percent of its historical extent. (See *Descriptions of Biodiversity Hotspots and Major Tropical Wilderness Areas with Guidance to SFI Program Participants on Their Relation to the SFIS,* available at http://www.aboutsfb.org.)

biological diversity, biodiversity The variety and abundance of life forms, processes, functions, and structures of plants, animals, and other living organisms, including the relative complexity of species, communities, gene pools, and ecosystems at spatial scales that range from local to regional to global.

biotechnology The application of biological engineering at the cellular and molecular level.

conservation 1. Protection of plant and animal *habitat*. 2. The management of a renewable natural resource with the objective of sustaining its productivity in perpetuity while providing for human use compatible with sustainability of the resource.

critically imperiled Globally extremely rare or, because of some factor(s), especially vulnerable to extinction. Typically, five or fewer occurrences or populations remain, or very few individuals (<1,000), acres (<2,000), or linear miles (<10) exist. Often referred to as G1. (See *Guidance Document for Biodiversity Hotspots, Major Tropical Wilderness Areas and Forests With Exceptional Conservation Value* available at http://www.aboutsfb.org.)

culturally important Significant because of an association with indigenous peoples (e.g., Native Americans or First Nations).

degree A professional academic degree (e.g., bachelor's) or equivalent.

direct supplier A *procurement* source with whom a *Program Participant* has a direct contractual relationship.

economic viability The economic incentive necessary to keep forest ownerships profitable and competitive and to keep people gainfully employed.

exotic tree species A tree species introduced from outside its natural range, excluding species that have become "naturalized" in the area and have a naturally reproducing population. (*Note:* Hybrids of native species or native plants that have been derived from genetic tree improvement and biotechnology programs are not considered exotic species.)

first-party verification Verification of an organization's performance conducted from

within the organization by qualified individuals who are not accountable to those directly responsible for the subject matter being verified. Also called *self-verification.*

forest health The perceived condition of a forest derived from concerns about such factors as its age, structure, composition, function, vigor, presence of unusual levels of insects or disease, and resilience to disturbance.

forestry The profession embracing the science, art, and practice of creating, managing, using, and conserving forests and associated resources for human benefit and in a sustainable manner to meet desired goals, needs, and values.

forestry enterprise A business engaged in the management of forestland, having its own functions and administration and comprising one or more operating units.

geographic information system (GIS) An organized collection of computer systems, personnel, knowledge, and procedures designed to capture, store, update, manipulate, analyze, report, and display forms of geographically referenced information and descriptive information.

green-up requirement Previously clearcut harvest areas must have trees at least 3 years old or 5 feet high at the desired level of stocking before adjacent areas are clearcut.

growing stock All the trees growing in a forest or in a specified part of it, meeting specified standards of size, quality and vigor, and generally expressed in terms of number or volume.

growth-and-yield model A set of relationships, usually expressed as equations and embodied in a computer program or tables, that provides estimates of future stand development given initial stand conditions and a specified management regime.

growth and drain The average annual net increase in the volume of trees during the period between inventories (including the increment in net volume of trees at the beginning of the specific year surviving to its end, plus the net volume of trees reaching the minimum size class during the year, minus the volume of trees that died during the year, and minus the net volume of trees that became cull trees during the year) minus the net volume of *growing stock* trees removed from the *inventory* during a specified year by harvesting, cultural operations such as timber *stand* improvement, or land clearing. From Smith, W. Brad, Patrick D. Miles, John S. Vissage, and Scott A. Pugh. 2003. *Forest Resources of the United States, 2002.* General Technical Report NC-241. St. Paul, MN: USDA Forest Service, North Central Research Station.

habitat 1. A unit area of environment. 2. The place, natural or otherwise (including climate, food, cover, and water) where an individual or population of animals or plants

naturally or normally lives and develops.

illegal logging Theft of timber or logs and cutting in parks, reserves, or other similar areas where otherwise precluded by law.

imperiled A plant or animal or community, often referred to as G2, that is globally rare or, because of some factor(s), is very vulnerable to extinction or elimination. Typically, six to 20 occurrences, or few remaining individuals (1,000 to 3,000), or acres (2,000 to 10,000), or linear miles (10 to 50) exist. (See *Guidance Document for Biodiversity Hotspots, Major Tropical Wilderness Areas and Forests With Exceptional Conservation ValueI,* available at http://www.aboutsfb.org.)

improved planting stock Products of tree improvement programs in which the parent trees were selected through Mendelian crosses for increased growth, pest resistance, or other desirable characteristics.

indicator In the SFI Program, a specific metric, integral to conformance with the SFI Standard, that provides information about an organization's *forestry* and environmental performance and is used to assess conformance to the SFI Standard *objectives* and *performance measures.*

inventory 1. A set of objective sampling methods that quantify the spatial distribution, composition, and rates of change of forest parameters within specified levels of precision for management purposes. 2. The listing of data from such a survey.

integrated pest management The maintenance of destructive agents, including insects at tolerable levels, by the planned use of a variety of preventive, suppressive, or regulatory tactics and strategies that are ecologically and economically efficient and socially acceptable.

land classification The process of generating and applying land strata that are sufficiently homogeneous in their physical, vegetative, and development attributes.

landscape 1. A spatial mosaic of several ecosystems, landforms, and plant communities across a defined area irrespective of ownership or other artificial boundaries and repeated in similar form throughout. 2. An area of land characterized by

- similar biogeoclimatic conditions that influence site potential;
- similar historical disturbance regimes that influence vegetation structure and species composition; and
- sufficient size to provide the range of *habitat* conditions for naturally occurring communities (except for a few megafauna with large spatial needs, e.g. wolves).

lead auditor An *auditor* appointed to lead an audit team. Also referred to as an *audit team* leader (ISO 19011:2002, 3.9, note 1).

least-toxic and narrowest-spectrum pesticide A chemical preparation used to control site-specific pests that *minimizes* impact to nontarget organisms and causes the least impact to the site while meeting management objectives. The management objectives should consider the target pest, the degree of control needed, cost, and other issues, such as season and timing of application, rates and methods, terrain, forest conditions, and the presence or absence of water bodies.

licensee A company, organization, or individual that participates in the SFI Program through a contractual agreement to abide by the SFI Standard *principles* and *objectives*. A licensee is one type of *Program Participant*.

major tropical wilderness areas The world's largest-remaining tracts of tropical forest that are more than 75 percent intact. These areas are characterized by extraordinary biological richness, including exceptional concentrations of endemic species, and are also of crucial importance to climate regulation, watershed protection, and maintenance of traditional indigenous lifestyles. (See *Descriptions of Biodiversity Hotspots and Major Tropical Wilderness Areas with Guidance to SFI Program Participants on Their Relation to the SFIS*, available at http://www.aboutsfb.org.)

management responsibilities on public lands Accountability for developing plans and translating public agencies' missions, goals, and objectives to an organized set of actions.

minimize To do only that which is necessary and appropriate to accomplish the task or *objective* described.

major nonconformance One or more of the SFIS *performance measures* or *indicators* has not been addressed or has not been implemented to the extent that a systematic failure of a *Program Participant's* SFI system to meet an SFI *objective, performance measure* or *indicator* occurs.

minor nonconformance An isolated lapse in SFIS program implementation which does not indicate a systematic failure to consistently meet an SFI *objective, performance measure* or *indicator*.

natural regeneration The establishment of a plant or a plant age class from natural seeding, sprouting, suckering, or layering.

nonforested wetland A transitional area between aquatic and terrestrial ecosystems that does not support tree cover and is inundated or saturated for periods long enough to produce hydric soils and support hydrophytic vegetation.

objective In the SFI Program, a fundamental goal of sustainable forest management as embodied in objectives 1–13 of the SFI Standard.

old-growth forests A forested ecosystem distinguished by old trees and related structural attributes, such as tree size, down woody debris, canopy levels, and species composition. *Program Participants* should utilize a definition specific to their region and particular forest types.

other wood supplier A person who infrequently supplies wood fiber on a small scale. Examples include farmers and small-scale land-clearing operators.

performance measure In the SFI Program, a means of judging whether an *objective* has been fulfilled.

policy A written statement of commitment to meet an *objective* or to implement a defined *program* or plan to achieve an *objective* or outcome.

principle In the SFI Program, the vision and direction for sustainable forest management as embodied in principles 1–9 of the SFI Standard.

procurement Acquisition of roundwood (sawlogs or pulpwood) and field-manufactured or primary-mill residual chips, pulp, and veneer to support a forest products manufacturing facility.

productivity The inherent capacity of a particular site or ecosystem to produce a crop or tree *stand*, often measured in volume or height.

program An organized system, process, or set of activities to achieve an *objective* or *performance measure*.

Program Participant A member of AF&PA or a *licensee* of the SFI Program.

protection Maintenance of the status or integrity, over the long-term, of identified attributes or values including management where appropriate and giving consideration to historical disturbance patterns, fire risk and forest health when determining appropriate conservation strategies.

public land Land enrolled in the SFI Program that is owned or administratively managed by a government entity (federal, state, provincial, or local), excluding easements or other encumbrances held by a government entity on private land.

purchased stumpage *Procurement* of roundwood directly from a landowner under a contractual agreement that gives the *Program Participant* the right and obligation to harvest the timber.

qualified logging professional A person with specialized skills in timber harvesting gained through experience or formal training who has successfully completed *wood producer* training programs recognized by *SFI Implementation Committees* as meeting the spirit and intent of performance measure under Objective 8 of the SFI Standard.

qualified resource professional A person who by training and experience can make forest management recommendations. Examples include foresters, soil scientists, hydrologists, forest engineers, forest ecologists, fishery and wildlife biologists or technically trained specialists in such fields.

reforestation The reestablishment of forest cover either naturally or artificially.

riparian Related to, living in, or located in conjunction with a wetland, on the bank of a river or stream or at the edge of a lake or tidewater.

secondary education High school education, or equivalent, preceding a college or university *degree.*

second-party verification Verification of an enterprise's performance conducted by an affiliated or interested group, such as a forest products trade association, another forestry enterprise, or a customer.

SFI certification A systematic and documented verification process to obtain and evaluate evidence objectively to determine whether a *Program Participant's* SFI Program conforms to the SFI Standard.

SFI Implementation Committee A state, provincial, or regional committee organized by SFI Program *Participants* to facilitate or manage the programs and alliances that support the growth of the SFI Program, including sustainable forest management.

silviculture The art and science of controlling the establishment, growth, composition, health, and quality of forests and woodlands to meet the diverse needs and values of landowners and society on a sustainable basis.

skid trail A temporary path through the woods to transport felled trees or logs to a collection area for further transportation.

stand A contiguous group of trees sufficiently uniform in age, composition, and structure, and growing on a site of sufficiently uniform quality, to be a distinguishable unit.

sustainable forestry to meet the needs of the present without compromising the ability of future generations to meet their own needs by practicing a land stewardship ethic that integrates *reforestation* and the managing, growing, nurturing, and harvesting of trees for

useful products with the *conservation* of soil, air and water quality, *biological diversity, wildlife* and *aquatic habitat*, recreation, and aesthetics.

Sustainable Forestry Board (SFB) An independent multistakeholder body that manages the SFI Standard and its associated verification procedures and qualifies certification *auditors.*

Sustainable Forestry Initiative® Program The structure, responsibilities, practices, procedures, processes, and time frames by which *Program Participants* implement, maintain, and improve sustainable forest management.

Sustainable Forestry Initiative Standard (SFIS) The *principles, policies, objectives, performance measures,* and *indicators* that detail specific requirements for *Program Participants.*

Sustainable Forestry Initiative Standard Audit Procedures and Qualifications (SFI APQ) The *principles* and guidelines that detail specific requirements to *Program Participants* and *auditors* for conducting audits to the SFI Standard.

technical expert A person who provides specific knowledge or expertise to the *audit team* (ISO 19011 2002, 3.10).

third-party certification An assessment of conformance to the SFI Standard conducted according to the standards of the SFI APQ and ISO 19011 by a qualified *audit firm*.

threatened and endangered Listed under the U.S. Endangered Species Act or the Canadian Species at Risk Act and listed under applicable state or provincial laws requiring protection.

traditional forest-related knowledge Forest-related knowledge owned and maintained by indigenous peoples as a result of their traditional use of or tenure on forestland.

verifiable monitoring system A system capable of being audited by a third party that includes (a) a means to characterize the *Program Participant's wood and fiber supply area,* which may include sources certified to a standard that requires *reforestation* and compliance with *BMPs;* (b) a process to identify and use sources of available data (e.g., state monitoring programs, certification status of suppliers) in the use of *BMPs* and rates of *reforestation;* and (c) a method to assess supplier performance, if needed, to supplement available data.

visual quality The seen aspects of both the land and the activities that occur upon it.

visual quality management Minimization of the adverse visual effects of forest management activities.

wildlife Marine and freshwater aquatic and terrestrial fauna.

wood and fiber supply area The geographic area from which a *Program Participant* procures, over time, most of its wood and fiber from *wood producers.*

wood producer A person or organization, including loggers and wood dealers, involved in harvesting or regularly supplying wood fiber directly from the forest for commercial purposes.

###END of SECTION###

2005-2009

Sustainable Forestry Initiative®
Audit Procedures and Qualifications

SUSTAINABLE FORESTRY INITIATIVE^{Ò} PROGRAM

2005–2009 Edition
Sustainable Forestry Initiative® Audit Procedures and Qualifications (SFI APQ)

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Introduction

Audits for the Sustainable Forestry Initiative Standard® (SFI) should be conducted in accordance with the principles of auditing contained in the International Organization for Standardization (ISO) 19011:2002 guidelines for quality and/or environmental management systems auditing. ISO is a worldwide federation of national standards bodies. The preparation of International Standards is conducted by ISO technical committees. The ISO 19011 guidelines were prepared jointly by Technical Committee ISO/TC 176 for Quality Management and Quality Assurance, and Technical Committee ISO/TC 207 for Environmental Management.

The ISO 19011 guidelines provide direction for conducting management systems audit programs, conducting internal and external audits of management systems, and evaluating and determining competence of *auditors* for a broad range of potential users.

The SFI Audit Procedures and Qualifications (APQ) follow a format similar to that of the ISO 19011 guidelines in giving specific requirements to *Program Participants* and *auditors* for conducting audits to the SFI Standard. The Sustainable Forestry Board requires that all certification, recertification, or surveillance audits to the SFI Standard conducted by third parties follow the guidelines provided in ISO 19011 document and satisfy the SFI APQ requirements.

1. Scope

This SFI Audit Procedures and Qualifications document supports the International Standard ISO 19011:2002 Guidelines for quality and/or environmental management systems auditing by providing specific requirements to *Program Participants* and *auditors*. It is applicable to all forest management and wood *procurement* organizations when conducting *third-party certification,* recertification, or surveillance audits to the SFI Standard.

Program Participants may decide to seek *first-party verification* (to self-verify), seek *second-party verification,* or seek independent *third-party certification* of conformance with the SFI Standard requirements. Although this document addresses third-party audits, it may be used as guidance if a *Program Participant* decides to seek *first-* or *second-party verification*.

2. Normative Reference

Audit firms must follow International Standard ISO 19011:2002, *Guidelines for Quality and/or Environmental Management Systems Auditing,* in auditing to the SFI Standard.

3. Terms and Definitions

Definitions of terms can be found in the 2005–2009 edition of the Sustainable Forestry Initiative Standard.

4. Procedures for Implementing the Principles for SFI Auditing

An SFI *audit firm* shall have written procedures to determine how it will meet the principles of ethical conduct, fairness, professionalism, independence, and use of an evidence-based approach in conducting SFI audits. These procedures shall explicitly address *auditor* conflicts of interest and confidentiality in the audit process and be consistent with other authorities under which the *audit firm* operates.

To satisfy the requirements for independence and objectivity, an *auditor* shall ensure that the services it provides are free from conflict of interest and that all information gathered as part of these services is maintained in strict confidence. The *auditor* shall require all members of an *audit team* (including *technical experts*) to sign a confidentiality and nonconflict-of-interest statement. At a minimum, this statement shall include the following:

> No person conducting work for and on behalf of an auditor shall accept, from any source, inducements for the purposes of assisting, favoring, hindering, or delaying any transactions between the Program Participant and the auditor. Any actual or potential conflict of interest identified by prospective audit team members shall be disclosed to the auditor. The auditor shall ensure that appropriate action is taken; e.g., a change of personnel for that particular task.

Typical examples of an actual or potential conflict of interest for a member of an SFI *audit team* include the following:

a. financial interest or involvement within the organization being audited;
b. previous employment and or consultancy by the organization being audited within the past three years or since the most recent certification or recertification audit; and
c. direct personal connections or relationships with persons within the organization being audited.

All information and documents, including working drafts and any reports, shall be considered confidential. *Auditors* shall not release any information or documents without the prior written permission of the *Program Participant. Auditors* shall conduct themselves in a professional and ethical manner.

Auditor and *audit team* members and their employers shall not participate in an appraisal or advise a potential purchaser or broker a purchase of property audited within the prior three years without the written permission of the audited party. *Auditors, audit team* members, and employers shall notify the audited party of participation in such activities

after the three-year period immediately upon initiation of such activities for a period of at least 10 years following the audit.

Prior to engaging in an audit and the *Program Participant's* acceptance of the *audit team*, the *auditor* and *audit team* members shall disclose to the party requesting an audit any prior land appraisal or assessment work or land brokerage activity they or their employers conducted related to the property to be audited.

The *audit firm* also shall establish written procedures for implementing the requirements of its audit program as identified in Sections 5, 6, and 7 of the ISO 19011 and the SFI APQ.

5. SFI Audit Program Monitoring

The Sustainable Forestry Board (SFB) provides quality control of the *auditors* and audit procedures through annual peer review. SFB witnesses the execution of at least one certification or recertification audit for each approved *audit firm* each year. The objective of this witnessed audit is to ensure that the *audit firm* is conducting *SFI certification* audits in conformance with the ISO 19011 guidelines and the SFI APQ requirements. SFB has established written procedures for conducting witnessed audits in the field and communicates these to the *auditor* prior to the witnessed audit. *Audit firms* must provide SFB with the dates of all scheduled audits to facilitate peer review. If an *audit firm* does not conduct an audit in a given year, SFB shall prioritize that firm for witnessing of its next audit.

6. SFI Audit Activities

6.1. Initiating the SFI Audit

6.1.1. Prior Notification to SFB

Any organization seeking independent *third-party certification or* recertification to the SFI Standard shall notify the Sustainable Forestry Board a minimum of two weeks prior to undertaking the audit.

6.1.2. Objectives and Scope for SFI Audits

Audit *objectives* and scope are determined jointly by the *audit firm* and the *Program Participant*. The *audit firm* must ensure that the *objectives* and scope of the audit

a. meet the SFI Standard requirements;
b. set an appropriate geographic scale;
c. allow for accurate field determination of conformance for the entire operating unit; and

d. apply all relevant portions of the standard (*principles, policies, objectives, performance measures,* and *indicators*).

Two specific audit objectives shall be accomplished during *SFI certification* audits. An SFI audit shall

a. verify that the *Program Participant's* SFI Program is in conformance with SFI *objectives, performance measures,* and *indicators,* and any additional indicators that the *Program Participant* chooses and
b. verify whether the *Program Participant* has effectively implemented its SFI Standard program requirements on the ground.

6.1.3. Substitution and Modification of SFI

Program Participants, with consent of the *audit firm,* may substitute or modify *indicators* to address local conditions based on a thorough analysis and adequate justification to the *audit firm,* which is responsible for ensuring that revised *indicators* are consistent with the spirit and intent of the SFI Standard *performance measures* and *indicators,* and that changes are appropriate for the specific local conditions and circumstances and the *Program Participant's* scope of operation.

Additional indicators beyond those identified in the SFI Standard, if included by the *Program Participant,* shall be audited like all other *indicators.*

6.2. Determination of Conformance

The *audit firm* shall assess conformance to each element of the SFI Standard within the scope of the audit. SFI Standard elements are *objectives, performance measures,* and *indicators*.

If a *major nonconformance* is found, a certificate of conformance shall not be issued until the *audit firm* verifies that corrective action approved by the *lead auditor* has been implemented. A revisit may be required to verify implementation of corrective action.

If a *minor nonconformance* is found, a certificate of conformance may be issued only after the *lead auditor* approves a corrective action plan that addresses the nonconformance within an agreed-upon period, not to exceed one year. Verification that the corrective action has been effectively implemented shall occur during the next surveillance audit.

6.3. The SFI Audit Report

The SFI audit report shall cover

a. the audit objectives, scope, time period, and audit plan;

b. identification of the *Program Participant* and *audit team* personnel;
c. a description of the audit process used;
d. documentation of the rationale for the substitution of modification of any *indicators;*
e. audit findings and conclusions;
f. a schedule for surveillance and recertification; and
g. the distribution and confidential nature of the audit report.

See Section 8, below, regarding the development and release of public reports.

6.4. Completing the SFI Audit

The effective date on the certificate of conformance shall be the date of the closing meeting (if there are no nonconformances) or the date when all corrective action plans for *minor nonconformances* have been approved by the *lead auditor* and corrective actions for all *major nonconformances* have been implemented.

6.5. Surveillance Audits

To ensure continued conformance to the SFI Standard, surveillance audits shall normally be annual, consistent with International Accreditation Forum Guidance on the Application of ISO/IEC Guide 66, and the interval shall not exceed 18 months.

If a *Program Participant* wishes to make a public statement on their *SFI certification*, ~~Public~~ surveillance audit reports shall be submitted to SFB. The content of these reports shall follow the requirements of Section 8.1, below.

6.6. Recertification

To maintain a current SFI certificate, *Program Participants* shall periodically recertify their SFI Programs. Recertification to the SFI Standard can be achieved in two ways as agreed to by the *Program Participant* and the *audit firm*.

6.6.1. Standard Recertification

Under the standard recertification approach, a full recertification audit against all of the SFI Standard *objectives, performance measures*, and *indicators* is required every five years.

6.6.2. Continuous Certification

Alternatively, surveillance audits may be used to complete the recertification if, over the five-year period, conformance with each SFI Standard *objective, performance measure*,

and *indicator* is fully assessed as appropriate to the scope and scale of the certificate at least once during the five-year period.

7. Competence of SFI Audit Firms, Audit Teams, and Auditors

7.1. Qualifications of Audit Firms

Firms that conduct SFI audits must be environmental management system (EMS) registrars and accredited by the American National Standards Institute or the Standards Council of Canada.

7.2. Qualifications of Audit Teams

Audit teams shall have the knowledge and skills to conduct an audit in accordance with the principles of auditing. The *audit firm* shall select *audit team* members appropriate to the scope, scale, and geography of the audit. Additionally, at least one member of the *audit team* shall have knowledge of forestry operations in the region undergoing the audit, at least one member shall have knowledge of applicable laws and regulations, and at least one member shall be a professional forester as defined by the Society of American Foresters (SAF), the Canadian Institute of Forestry, or licensed or registered by the state(s) or province (s) in which the certification is conducted. For forest management audits, the *audit team* shall have expertise that includes plant and *wildlife* ecology, *silviculture,* forest modeling, forest operations, and hydrology. One specialist per discipline is not required to meet any of the above requirements.

7.3. Qualifications of Auditors

Audit team members shall have the education, formal training, and experience that promotes competency in and comprehension of

a. forestry operations as they relate to natural resource management, including *wildlife,* fisheries, recreation, etc.;
b. environmental regulation related to *forestry;*
c. international and domestic *sustainable forestry* management systems and performance standards; and
d. certification requirements related to the SFI.

All *auditors* shall have education, training and experience appropriate to their responsibilities on the *audit team.* At a minimum, *audit team* members shall have completed a *secondary education* or equivalent. *Audit team* members who do not have a professional *degree* in *forestry* or a closely related field shall have a minimum of five years' work experience. No more than two years of postsecondary education in pursuit of a professional degree can be credited against work experience.

Audit team members who have obtained a professional *degree* in *forestry* or a closely

related field shall have a minimum of two years' relevant work experience.

The provisions of Table 1 in ISO 19011 shall not apply to SFI *auditors.*

7.4. Qualifications of Lead Auditors

Lead auditors who conduct *third-party certification* shall have the qualifications in Section 7.3, above, and shall be certified as an environmental management systems *lead auditor,* or equivalent, by a national accreditation body, such as the Registrar Accreditation Board or the Canadian Environmental Auditing Association.

The *lead auditor's* organization or firm shall be accredited to conduct ISO 14001 certifications by the American National Standards Institute or be listed by the Registrar Accreditation Board, or equivalent.

7.5. Maintenance and Improvement of Competence

All *audit team* members shall pursue ongoing personal and professional development in

a. forest management science and technology;
b. sustainable forest management systems and certification programs and standards;
c. understanding and interpretation of federal and state *forestry* and environmental laws and codes of practice; and
d. certification procedures, processes, and techniques, especially as these pertain to the SFI Standard.

An *auditor* who maintains *Certified Forester,* Registrar Accreditation Board, or Canadian Environmental Auditing Association certification, or equivalent, shall be considered to have fulfilled continuing education requirements.

Auditors shall maintain records documenting their hours of education, experience, and training and provide this information to SFB on request.

8. Public Communication and Claims

8.1. Preparing and Submitting a Public Report

A *Program Participant* that wishes to make any public claims or statements about its *SFI certification,* recertification, or surveillance audit shall provide a report to the SFB not less than two weeks before making the report public. The public report will be posted on the SFB website and available for public review.

The auditor shall work with the *Program Participant* to prepare the public report, which shall include, at a minimum,

a. a description of the audit process, objectives, and scope;
b. a description of substitute indicators, if any, used in the audit and a rationale for each;
c. the name of *Program Participant* that was audited, including its SFI representative;
d. a general description of the *Program Participant's* forestland and manufacturing operations included in the audit;
e. the name of the *audit firm* and *lead auditor* (names of the *audit team* members, including *technical experts* may be included at the discretion of the *audit team* and *Program Participant*);
f. the dates the certification was conducted and completed;
g. a summary of the findings, including general descriptions of any nonconformances and corrective action plans to address them, opportunities for improvement, and exceptional practices; and
h. the certification recommendation.

8.2. Public Claims

Any public communication by *Program Participants* shall be accurate and consistent with applicable law and requirements for SFI logo use.

Program Participants are encouraged to consult the U.S. Federal Trade Commission's guidelines on environmental claims in product advertising and communication and the guidelines on environmental labeling and advertising issued by the Fair Business Practices Branch of Industry Canada's Competition Bureau, as appropriate, and to seek additional information and direction from national accreditation bodies, national standards bodies and national, state and provincial consumer protection and competition laws.

9. Interpretations, Feedback, and Disputes and Appeals

9.1. Interpretations

From time to time, a formal process may be needed to interpret the SFI Standard and its supporting documents. As part of SFB's commitment to continual improvement of both the *SFI certification* process and the SFI Standard, such concerns shall be submitted promptly to the SFB Interpretations Committee at the SFB website, contact@aboutsfb.org. The SFB Interpretations Committee shall respond within 45 days of receipt.

It is neither the intent nor the responsibility of the SFB Interpretations Committee to resolve disputes arising through certification; nevertheless, the committee will provide opinions and direction to assist parties in answering interpretive questions. Through this process, the SFI Program shall maintain a record of opinions and concerns available to

both *Program Participants* and *auditors* to assist with certification planning. SFB shall periodically review this record and, where appropriate, recommend changes for inclusion in the SFI Standard or SFI APQ.

9.2. Disputes or Appeals between an Auditor and a Program Participant
Auditors shall have an internal dispute resolution process. Resolution of all disputes between an *auditor* and a *Program Participant* shall be addressed via these mechanisms.

9.3. Disputes or Appeals between an External Party and a Program Participant

9.3.1. Disputes or Appeals Regarding a Single Instance or Claim of Nonconformance
Any party with information or claims about a *Program Participant's* individual practices that may be in nonconformance may seek to have those claims investigated.

The complainant shall present specific claims of nonconformance in writing and in sufficient detail to the *Program Participant.* Within 45 days of receipt of the complaint, the *Program Participant* shall respond to the complainant and forward a copy of the complaint and its response to the *Program Participant's auditor* for future review via surveillance or certification audits. The *auditor* shall investigate the validity of the complaint and the *Program Participant's* response and resolution of the claim at the time of the next scheduled surveillance audit.

A complainant who believes the issue has not been satisfactorily resolved may provide its original documentation and the response from the *Program Participant* to the appropriate *SFI Implementation Committee* Inconsistent Practices Program, which shall investigate and respond to the allegations within 45 days of receipt of documentation. If no appropriate *SFI Implementation Committee* Inconsistent Practices Program exists, the complainant may address the issue to the SFI National Inconsistent Practices office via the External Review Panel Secretariat. The *SFI Implementation Committee* or National Inconsistent Practices Program shall provide copies of its findings and any recommended actions to both the *Program Participant* and the complainant.

9.3.2. Disputes or Appeals Questioning the Validity of a Certification
Any party with information or claims that question the validity of an entire certification may seek to have those claims investigated.

The complainant shall document the specific claims of nonconformance in writing and in sufficient detail to the *Program Participant.* Within 45 days of receipt of the complaint, the *Program Participant* shall respond to the complainant in writing and forward a copy of the complaint and its response to the *Program Participant's auditor* for future review via surveillance or certification audits.

A complainant who believes the issue has not been satisfactorily resolved may provide its original documentation and the response from the *Program Participant* to the SFB

President for review and consideration by the SFB Certification Appeals Subcommittee, which shall immediately appoint an ad hoc member with appropriate *forestry* expertise. Upon reviewing the information, the SFB Certification Appeals Subcommittee may

a. declare the claim invalid, thus closing the review;
b. seek more information from the complainant or the *Program Participant;* or
c. if, in the view of the SFB Certification Appeals Subcommittee, there is sufficient evidence, if confirmed, to threaten the validity of the certification, refer the case to SFB for possible resolution by an ad hoc certification review task force comprising, at a minimum,
    i. one representative from the certification auditing profession;
    ii. one representative from the professional *forestry* community with expertise and knowledge of forest conditions and practice in the region; and
    iii. one representative from the environmental nongovernmental organization community.

The above representatives may, where appropriate, be drawn from the External Review Panel and SFB, with such representation limited to a single individual from each body. The ad hoc certification review task force shall review all relevant information and if necessary conduct a field visit. Upon review, the task force may

a. find that the case is without merit and no further action is required;
b. find that corrective actions are necessary; or
c. if the *Program Participant* fails to take appropriate corrective measures or if no action would be sufficient to remedy the situation, suspend certification.

2005-2009 SUSTAINABLE FORESTRY INITIATIVE® STANDARD GUIDANCE DOCUMENT

The following information serves as "guidance" to provide more detail and definition on biodiversity hotspots and major tropical wilderness areas, forests with exceptional conservation value, invasive exotic species, BMP monitoring and surveillance audits.

1.0 Descriptions of Biodiversity Hotspots and Major Tropical Wilderness Areas

The SFIS calls for procurement policies that promote conservation of forests in areas outside of the United States and Canada identified as biodiversity hotspots and major tropical wilderness areas. This document provides additional descriptive information drawn from Conservation International's poster/map entitled "Biodiversity Hotspots—Earth's Biologically Richest and Most Endangered Terrestrial Ecoregions". Two of the areas (California Floristic Province and Caribbean) are wholly or partially within the United States and for the purposes of the SFIS those portions within the U.S. are addressed by the NatureServe or equivalent processes that are being implemented in North America for identification of critically imperiled and imperiled species and communities. Compliance with the SFIS does not mean that that SFI Program Participants must cease all raw material or procurement activities from all unmanaged forests within these areas. Rather, emphasis is on seeking assurance that fiber and logs are secured from areas harvested legally and at the same time avoiding actions that serve to cause or encourage further destruction of remaining original primary vegetation. Working to increasingly meet fiber and wood production needs from plantations and managed forests enhances efforts to protect remaining biologically diverse habitats. Program Participants can work with Conservation International, World Wide Fund for Nature, The Nature Conservancy and others to provide additional guidance on aligning business and conservation objectives within these regions. At the same time collaborative efforts between and among governments, conservation interests and the private sector will be necessary to implement conservation strategies within or apart from the SFIS to achieve biodiversity goals within these areas while addressing social and political circumstances unique to each country of origin.

1.1 Biodiversity Hotspots

The most recent analysis applying the defining characteristics (exceptional concentrations of endemic species and extraordinary degree of threat) of "biodiversity hotspots" identified the following 25 areas:

1. Tropical Andes—The most diverse of all hotspots. The Andes are home to 20,000 endemic plants and at least 1,567 endemic terrestrial vertebrates. Unique species include the spectacled bear, the only bear species in South America, and the mountain tapir. The region is also home to a spectacular array of birds and amphibians. Toucans,

hummingbirds and tanagers are particularly diverse in the Tropical Andes.

2. Mesoamerica—Forming a land bridge between North and South America, the Mesoamerica hotspot is a huge transition zone characterized by species lineages from both continents. The spider monkeys, howler monkeys, Baird's tapir and the resplendent quetzal are a few of Mesoamerica's most dramatic species. This region is one of the richest and most diverse hotspots on Earth, combining lowland rain forest with montane cloud forest.

3. Caribbean—The Caribbean hotspot has one of the highest concentrations of endemic species on Earth. Reptiles such as the Anolis lizards, are particularly diverse: 497 reptile species are found here, 80 percent of which are endemic. Total terrestrial vertebrates in this hotspot number 1,518, more than half of which are unique to the Caribbean. At least 10 parrot species and 33 mammal species have been driven to extinction over the last few centuries.

4. Choco-Darien-Western Ecuador—Contains some of the wettest rain forests on Earth with amphibians, plants and birds being particularly diverse. Of the 350 amphibian species found here 210 are endemic—one of the highest levels of endemism of any hotspot. The poison dart frogs are among the area's best-known amphibians.

5. Atlantic Forest Region (of South America)—Once covering an area three times the size of California, the Atlantic Forest has been reduced to less than a tenth of its original extent. It is famous for 25 different species and subspecies of primates, 20 of which are found only in this hotspot, including the critically endangered muriquis and lion tamarins. Murici in Alagoas state, at the northern end of the Atlantic forest, may be the world's most important forest for bird conservation, holding 14 globally threatened bird species in 15 square kilometers.

6. Brazilian Cerrado—A vast area of savanna and dry forest, the Cerrado is Brazil's new agricultural frontier and has been heavily impacted in the past few decades. It is home to 4,400 endemic plants and several unique mammal species, including the giant anteater and the maned wolf. Fire, both natural and human-induced, is an important feature of the ecology of the Cerrado.

7. Central Chile—Bearing more resemblance to California than to anywhere in the Southern Hemisphere, this hotspot combines an arid region with a Mediterranean-type zone. It is best known for its variety of plant species but also holds interesting fauna species, including the chinchilla, the pudu, and the Andean condor.

8. California Floristic Province—Located largely within the state of California and extending into Oregon and northern Mexico, this is one of five hotspots characterized by a Mediterranean-type climate of hot, dry summers and cool, wet winters. Encompassing both mountain and coastal landscapes, the California Floristic Province is especially rich in plants; 48 percent of its 4,426 higher plants are endemic.

9. Madagascar & Indian Ocean Islands---Often considered a mini-continent, Madagascar is famous for its reptiles, birds, and primates. Tattersall's sifaka is one of this hotspot's 51 lemur taxa – unique primates found only on Madagascar and surrounding islands. Madagascar is thought by many to be the world's top conservation priority due to its remarkable biodiversity and extensive deforestation.

10.Eastern Arc Mountains & Coastal Forests of Tanzania & Kenya--A chain of upland and coastal forests, this hotspot claims one of the densest concentrations of unique plant and primate species in the world. It is home to the well-known African violets and 4,000 other plant species, as well as the 1,500 remaining Zanzibar red colobus monkeys and many other endangered primates.

11. Cape Floristic Province—This Mediterranean–type hotspot harbors an incredible 8,200 plant species, 5,682 of which are endemic, in an area the size of Ireland. The Cape Floristic Province has the greatest concentration of non-tropical plant species in the world. Agriculture and the invasion of non-native plant species represent the greatest threats to this hotspot.

12. Succulent Karoo—The Succulent Karoo is the only hotspot that is entirely arid. Renown for its unique succulent flora, the hotspot is home to 4,849 species of vascular plants, 40 percent of which are endemic, and is a center of diversity for reptiles and invertebrates.

13. Guinean Forests of West Africa—The Guinean Forests harbor the highest mammal diversity of any hotspot. The hotspot's 551 mammal species represent almost half of the mammal species of continental Africa. The Guinean Forests are home to the rare pygmy hippopotamus, the zebra duiker, and one of Africa's most endangered primates—the drill. Guinean Forest species have been heavily impacted by large-scale deforestation and hunting.

14. Mediterranean Basin—This hotspot is the largest of the five Mediterranean-type hotspots. Best known for its 13,000 endemic plant species, the Mediterranean is also home to a number of interesting vertebrates like Hermann's tortoise, the Barbary macaque, and the Mediterranean monk seal. The site of many ancient and modern civilizations, it is one of the most heavily impacted of all hotspots.

15. Caucasus--Situated between the Black Sea and the Caspian sea, the Caucasus hotspot ranges from temperate forests to grasslands. The Caucasus is a transition zone between Europe and Asia, holding flora and fauna representative of both continents. Its diversity of vascular plant species is particularly noteworthy, of the 6,300 species that have been recorded, more than 1,600 are endemic.

16. Sundaland--Including some of the largest islands in the world, the Sundaland hotspot is home to a number of unique species, including the endangered orangutans of Sumatra and Borneo, the clouded leopard, two species of rhinoceros, and 10 species of hornbills. The second richest hotspot in endemic plants, Sundaland is also well known for its

mammal diversity, with 328 species recorded.

17. Wallacea—Named for the renowned 19th century naturalist Alfred Russel Wallace, this hotspot includes the large Indonesian island of Sulawesi, the Moluccas and many smaller islands. The area is particularly rich in endemic birds and mammals, among them the Sulawesi redknobbed hornbill, the celebes macaque, and the babirusa. Wallacea is also home to the Komodo dragon.

18. Philippines--One of the highest priority hotspots, the primary forests of the Philippines have been reduced to 3 percent of their original extent. The hotspot is especially rich in endemic mammals and birds, holding incredible species such as the Palawan peacock pheasant, the Philippine eagle, the tamaraw, and flying foxes.

19. Indo Burma—Stretching from the eastern slopes of the Himalayas through Burma and Thailand to Indochina, this is one of the richest of all the hotspots. It holds the world's highest freshwater turtle diversity and an array of mammals, including the endemic pileated gibbon. Indo-Burma also holds 24 species of pheasants. The region is poorly known biologically; a number of large mammals, such as the saola and giant muntjac, have been discovered here in the last decade.

20. Mountains of South-Central China--An area of extreme topography and likely the most biologically rich temperate area on Earth, these mountains are home to several of the world's best-known species, including the giant panda, the red panda and the Chinese golden monkey. This hotspot is still largely unexplored and may hold many undiscovered species.

21. Western Ghats & Sri Lanka--The Western Ghats mountain chain of India and the adjacent island of Sri Lanka harbor high concentrations of endemic reptiles. Of the hotspot's 259 reptile species, 161 are found nowhere else on Earth. This hotspot is also home to a number of distinctive species, including the lion-tailed macaque and the Nilgigi tahr. Human population pressure and coffee cultivation are two of the region's greatest threats.

22. New Caledonia—New Caledonia is one of the smallest hotspots, yet its concentration of unique plants is unmatched. It is home to five plant families found nowhere else on Earth. This hotspot is also characterized by a large number of endemic birds such as the notou pigeon and the kagu, a rain forest bird that is the only representative of its entire family.

23. New Zealand—This hotspot claims a number of world-famous species, including the kiwis, the tuatara, and the weta cricket. The kakapo - a large, flightless nocturnal parrot – is one of New Zealand's most unusual and critically endangered endemic species. The hotspot also has four endemic bird families, a high number for such a small land area. About 50 bird species have become extinct since the island's colonization 700 years ago.

24. Polynesia & Micronesia—Comprised of thousands of tiny islands--scattered over

the Pacific from Hawaii to Figi to Easter Island—this hotspot is noteworthy for its land snails, birds, and reptiles. The biota of this hot spot is under intense pressure from human-induced disturbance and non-native species introductions, and its plants and animals are among the most highly endangered in the world. This hotspot has already suffered at least 1,000 bird species extinctions over the last 2,000 years.

25. Southwest Australia—A Mediterranean-type region, this hotspot is rich in endemic plants, reptiles, and marsupial mammals. The Southwest Botanical Province has a total of 5,469 plant species, of which 19 percent are endemic. It harbors some of the world's tallest trees, including several giant Eucalyptus species. The numbat, the honey possum, and the quokka are some of the area's best-known vertebrate species.

1.2 Major Tropical Wilderness Areas

1. Amazonia Wilderness Area—The largest tropical wilderness area left on Earth, Amazonia covers some 7 million square kilometers. Although shared by nine countries, more than 60 percent of the region occurs within the borders of Brazil. The Guayana Shield in northeast Amazonia holds the world's most pristine, unfragmented blocks of tropical forest. Amazonia as a whole has very high levels of diversity and endemism, including more freshwater fish and primate species than anywhere else on Earth.

2. Congo Basin Wilderness Area—Covering six nations and nearly 2 million square kilometers, the Congo Basin is the second-largest tropical rain forest region on Earth. Although much of the forest remains intact, it is increasingly being impacted by logging and bushmeat hunting. Among the most noteworthy species are the lowland gorilla, the chimpanzee, the bonobo, the okapi, the Congo peacock, and the forest elephant.

3. New Guinea Wilderness Area—The island of New Guinea and the surrounding Melanesian archipelago make up the largest remaining tropical wilderness area in the Asia Pacific region and covers an area about 800,000 square kilometers. Politically, New Guinea is shared by two countries, with the eastern half belonging to Papua New Guinea and the western half forming the Indonesian province of Papua. Among the region's spectacular species are the birds of paradise and tree kangaroos.

2.0 Forests With Exceptional Conservation Value

Beginning in July of 2002, The SFB has adopted a series of changes to the SFI Standard (SFIS) designed to expand protection of forests with exceptional conservation value (FECV). In short, these enhancements:

A. Require the use of NatureServe or equivalent processes in North America to identify and protect species and communities that are identified as critically imperiled or imperiled;
B. Call for procurement provisions to address biodiversity hotspots and major tropical wilderness areas outside of the United States and Canada; and
C. Added new performance measures and indicators designed to help thwart illegal logging.

2.1 Processes NatureServe Uses to Identify Global Rank and Occurrence Rank

Identification and protection of critically imperiled and imperiled species and communities is a step-wise process. First, the "global rank" which reflects the rarity / imperilment of the species or community is determined. Second, the viability of particular occurrences of critically imperiled and imperiled species and communities is assessed. A viable species or community is one that is of sufficient quality to likely survive long-term. Clearly, little conservation benefit is gained unless protected occurrences have a good likelihood of long-term survival. NatureServe inventory and conservation activities focus on locating, maintaining records on and working with partners to conserve viable occurrences of conservation elements. NatureServe / Heritage Programs rank viability of element occurrences (community or species) using standard methodologies to yield an Element Occurrence (EO) Ranking. A standard set of EO RANK Specifications is developed and maintained for each element and then applied against individual occurrences of the element. The basic EO RANKS are:

Basic EO Ranks
A: Excellent estimated viability
B: Good estimated viability
C: Fair estimated viability
D: Poor estimated viability
E: Verified extant (viability not assessed)
H: Historical
F: Failed to find
X: Extirpated

The SFIS requires that Program Participants have "plans to locate and protect known sites associated with viable occurrences of critically imperiled and imperiled species and communities". In determining the viability and potential to protect occurrences, Program Participants are encouraged to seek additional information from NatureServe (http://whiteoak.natureserve.org/eodraft/5.pdf) for info on occurrence ranking) and/or

collaborate with qualified conservation experts. Historic (H) and Extirpated (X) occurrences are clearly nonviable, and no protection activity is warranted. Occurrences that are ranked F are not covered under the SFIS since only known occurrences are included. Element occurrences with poor estimated viability (i.e., D-ranked) would not be protected under the SFIS. A D-rank might result because the acreage of a community or the population of a species is too small, the quality is very low, and/or the ecological processes required to maintain the occurrence are fundamentally altered and un-restorable. Under the SFIS, A- and B-ranked occurrences of critically imperiled and imperiled species and communities are to be protected. C-ranked occurrences should be reviewed and addressed on a case by case basis. Those with greater potential to be viable (C+) should be protected. Those with a lesser potential ability to be viable (C-) are to be managed at the Program Participant's discretion. To the extent practical, E-ranked occurrences (extant but viability not assessed) should be presumed viable and protected until assessed and determined to be of C- or D quality. *The following material provides additional information on the standards and methodologies employed by NatureServe in determining the quality or viability of occurrences.*

2.2 Occurrence Quality

For an ecological assessment, scientists and managers want to know if each occurrence is of sufficient quality, or feasibly restorable, before including in management planning. With adequate information, ecologists evaluate and rate the quality of element occurrences using criteria grouped into three categories: size, condition, and landscape context.

2.21 Criteria for Evaluating Element Occurrences

Characterizing the quality of an occurrence provides the basis for assessing stresses—the degradation, or impairment—of element occurrences at a given site. To assess the quality of element occurrences, ecologists must identify the key ecological factors (processes, disturbance regimes, composition or structure, etc.) that support them. Once these are identified, one may describe their expected ranges of variation and assess whether the on-site factors are within those ranges or requires significant effort to be maintained or restored to its desired status. Key ecological factors vary by element type, but all are grouped into three categories of size, condition and landscape context. Each of these three categories is reviewed and ranked for each occurrence as A (very good), B (good), C (fair), and D (poor). The break between C and D establishes a minimum quality threshold for occurrences. Occurrences Ranked D are typically presumed to be beyond practical consideration for ecological restoration. In subsequent management planning, these ranks and underlying criteria aid in focusing conservation activities and measure progress toward local conservation objectives. Definitions of these criteria are:

Size is a measure of the area or abundance of the conservation element's occurrence. For any conservation element, size may simply be a measure of the occurrence's patch size or geographic coverage. It may also include an estimate of sub-population size or density. Minimum dynamic area, one aspect of size, is the area needed to ensure

survival or re-establishment of a population or community after natural disturbance.

Condition is an integrated measure of the composition, structure, and biotic interactions that characterize the occurrence. This includes factors such as reproduction, age structure, biological composition (e.g., presence of native vs. invasive exotic species; presence of characteristic patch types), physical and spatial structure (e.g., canopy, understory, and groundcover; spatial distribution and juxtaposition of patch types or seral stages in an ecological system), and biotic interactions that directly involve the element (e.g., competition and disease).

Landscape context measures two factors: the dominant environmental regimes and processes that establish and maintain the element occurrence, and connectivity. Dominant environmental regimes include hydrologic and water chemistry regimes (surface and groundwater), geomorphic processes, climatic regimes (temperature and precipitation), fire regimes, and natural disturbances. Connectivity includes such factors as species elements having access to habitats and resources needed for life cycle completion, fragmentation of ecological communities and systems, and the ability of any element to respond to environmental change through dispersal, migration, or re-colonization. Criteria for ranking ecological communities vary by type. In many instances, criteria are developed for ecological systems, then modified (mostly with size attributes) for application to occurrences of individual rare plant associations that may occur among the more broadly defined ecological system.

3.0 Invasive Exotic Species

According to the USDA Animal and Plant Health Inspection Service, an invasive exotic species is “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem, whose introduction does or is likely to cause economic or environmental harm or harm to human health.” (www.invasive.org: accessed December 2, 2004) Examples would include gypsy moth and kudzu, but not the barred owl.

New indicator 4.1.7 does not require a SFI Program Participant to eliminate invasive exotic species on its land. SFI Program Participants should become knowledgeable about invasive exotic species within their area of operation. The expectation is that SFI Program Participants will participate in cooperative efforts by others (e.g. government agencies or ENGOs) and work proactively within its own programs (e.g. erosion control or seed selection for wildlife plots) to limit the introduction, impact and spread of invasive exotic species. In some places invasive exotics are well established and eradication by the SFI Program Participant is unrealistic. Experts in this area believe the most effective means of addressing invasive exotic species include:

a. awareness building,
b. monitoring,
c. preventing new introductions, and
d. eliminating new occurrences.

SFI Program Participants should emphasize these as priorities in their programs. Forest practices that reduce the abundance of invasive exotic species are preferred, if they can be addressed within the context of the Program Participant's overall management objectives.

4.0 BMP Monitoring

New indicator 8.4.1 does not require a SFI Program Participant to inspect the harvesting activities of every wood producer to assess their BMP compliance. A Program Participant can use a broad range of data to address this measure (e.g. state monitoring programs and certification status of wood producers). If the SFI Program Participant can use state data on its wood producers to accurately reflect BMP compliance rates, this data may be sufficient. If the state data do not accurately characterize BMP compliance rates for a SFI Program Participant's wood producers, then the SFI Program Participant will need to implement, either individually, cooperatively or through a third party, a process to evaluate their wood producers on the ground compliance. This process may include sampling to generate a representative assessment of wood producer compliance. If the wood producer is a wood dealer, the SFI Program Participant should assess the BMP compliance rates related to the wood being supplied by the wood dealer.

5.0 Surveillance Audits and Continuous Certification

Surveillance audits are intended to periodically monitor the ongoing effectiveness of a Program Participant's SFI program during the 5-year period between full third-party certification audits. A surveillance audit is used to assess the overall functionality of the Program Participant's SFI system, conformance to any new indicators, and would review completion of corrective action plans, if applicable. This option still requires the full audit at the end of the 5 year certification period. The surveillance audit is not intended to assess conformance to all SFI Indicators nor is it likely to require a full audit team. The interval between surveillance audits cannot exceed 18 months.

The continuous certification option is one way to meet the periodic surveillance audit requirement in the SFI Standard. As an alternative to the combination of surveillance audits and the full audit at the end of the 5 year certification interval, SFI Program Participants can implement partial audits performed every 12 – 18 months that address all SFIS Objectives. Approaches can vary among SFI Program Participants. For example, a SFI Program Participant could audit to the entire SFI Standard on different operating units throughout the organization over the 5 year certification cycle. Or, the SFI Program Participant could, on a periodic basis, audit to a subset of the SFI Standard indicators throughout the entire organization, but must address all of the indicators over the 5 year cycle in subsequent audits. The interval between audits cannot exceed 18 months.

SUSTAINABLE FORESTRY INITIATIVE® PROGRAM: OVERVIEW, GOVERNANCE, AND HISTORICAL INFORMATION

1.0 About the Sustainable Forestry Initiative Program

The Sustainable Forestry Initiative® (SFI) program is a comprehensive system of principles, objectives and performance measures developed by professional foresters, conservationists and scientists, among others that combines the perpetual growing and harvesting of trees with the long-term protection of wildlife, plants, soil and water quality. The SFI® program sets forth measures by which interested parties –customers, conservation interests, or members of the public – may monitor and evaluate the commitment of Program Participants to practice sustainable forestry. Not only are Program Participants committed to improving the performance of their own operations, but they are also setting new standards for the forest industry and extending those practices to other forest landowners, as well.

Program Participants – many of whom are forest products companies – have a strong record of stewardship on the lands they own and manage. Private forests include some of the most productive forests in the world. Innovative programs to create habitats and landscapes, and to enhance the diversity of flora and fauna, offer excellent examples of how foresters are working to integrate modern forest science for wood and fiber production with the protection of biological diversity and the conservation of sites that are unique in their geologic, ecologic, cultural, or historic value. Program Participants are also working diligently to share their technology and stewardship knowledge with non-industrial private landowners who own most of the forestland in the U.S. They are committed to meeting the needs of society by providing quality products for home and other building needs as well as for printing, packaging and personal use.

2.0 SFI Program Governance

The SFI Program is overseen by the Sustainable Forestry Board (SFB), an independent 501(c)3 organization, which is responsible for maintaining and enhancing the SFI Standard and verification procedures. The SFB has 15 members, two-thirds of which come from a wide range of non-industry interests, including: environmental/conservation organizations; public officials (state and/or federal agencies); professional/academic groups; logging professional; non-industrial landowners. The remaining five representatives on the SFB consist of representatives from the forest products industry.

The SFB was chartered in July 2000, to improve the effectiveness, consistency and credibility of the SFI program even further by establishing a multi-stakeholder Sustainable Forestry Board to manage the SFI Standard (SFIS), SFI Audit Procedures and Qualifications (APQ) and SFI program compliance (For more information about the SFB, visit http://www.aboutsfb .org

3.0 The SFI Program Enhancement Process

The latest round of SFI program enhancements in 2004 was the result of an extensive review and revision process that included a fully-open public review and comment process available to all interested parties. With the adoption of these changes, effective January 10, 2005 the SFB has established a five-year review cycle. The next review will occur in 2009, with any resulting changes or enhancements slated to take effect on January 10, 2010. Any changes to the SFIS must be incorporated into a Program Participant's policies, plans, and management activities within one year of adoption and publication. Similarly, changes to certification procedures and qualifications for certifiers must be accomplished within one year of adoption and publication.

The first round of SFI program enhancements adopted by the SFB occurred in 2001 following a fully-open public review and comment process. The resulting 2002-2004 SFIS was published in December of 2001 and was in place until January 10th, 2005 when the new 2005-2009 SFIS was adopted and published by the SFB.

The SFI Standard setting process is consistent with the International Organization for Standardization (ISO) Guide 59, "*Code of good practice for standardization*".

4.0 Reporting and Transparency

The SFI program issues an annual report to the public on SFI Program Participants' compliance with and progress on sustainable forestry, including a listing of all participants. And independent External Review Panel assists in the preparation of the annual report, including validation of conclusions and the assessment of reported progress. SFI Program Participants who wish to proclaim their conformance to the SFIS via certification must also provide a public report of their findings to interested parties.

5.0 Commitment to the Protection of Special Sites and Forests With Exceptional Conservation Value, Conservation of Biodiversity Hotspots and Major Tropical Wilderness Areas

SFI Program Participants are working through collaborative efforts with NatureServe and other qualified organizations to rapidly advance available databanks that will serve to further conservation efforts of special ecological sites and forest landscapes in North America and beyond. This collaboration might be implemented through state/provincial/stakeholder agreements. In pursuit of this goal, the SFI program can complement, but not substitute for, the lead role of governments in forest conservation and the important role played by land conservation organizations. Additionally, SFI Program Participant's ability to support and contribute to these conservation efforts comes with an expectation that mechanisms exist that provide economic return for the societal values provided by the landowners' forests. Instruments such as conservation easements, rental payments, land trades, tax policy, direct purchases or other equitable forms of securing economic value may be appropriate.

Protection of forests with exceptional conservation value will reflect differences in biogeographic conditions and trends, societal preferences, economic realities, and ecological definitions. We hope to set a leadership example for forest products producers, conservation interests, consumers and governments around the world by going beyond protection of special sites to collaborative efforts to identify and protect forest landscapes.

SFI Program Participants are also committed through their international land management and *procurement* activities in tropical regions, to promote the conservation of natural forests in areas identified as *biodiversity hotspots* and *major tropical wilderness areas*. Additionally, SFI Program Participants have agreed to work with governments, conservation organizations and others to ensure that their *procurement* practices strengthen efforts to thwart *illegal logging* activities. For more detailed information, reference "*2005-2009 Sustainable Forestry Initiative® Standard Guidance Document" sections 1.0 and 2.0* (available from the SFB at http://www.aboutsfb.org).

6.0 History of the SFI Program

The two watershed events that prompted the creation of the SFI were the 1987 Brundtland Commission report, *Our Common Future*, which set a vision for global sustainable development, and the 1992 Earth Summit. The Earth Summit focused global attention on the importance of *sustainable forestry*. Resulting discussions have led to general agreement that a definition for *sustainable forestry* must include two key concepts: First, the Brundtland Commission's finding that sustainability relies on the commitment of present generations not to limit the ability of future generations to meet their own needs. The second, forest practices must be economically viable, socially acceptable and protective of the environment if they are to be sustainable.

The development and subsequent improvements in the SFIS was also significantly influenced by emerging processes to define international principles and criteria for forest conservation and sustainable development such as the Montreal Process that began in 1993 and culminated with the February 1995 "Santiago Declaration" agreed to by the United States, Canada, Australia, Chile, China, Japan, Mexico, New Zealand, the Republic of Korea, and the Russian Federation.

In 1990, the American Forest Council convened a process on behalf of the American Paper Institute (API) and the National Forest Products Association (NFPA) through a *Future of Forestry Conference*, which resulted in the 1992 adoption of *10 Forest Management Principles*. In 1994, the American Forest & Paper Association (AF&PA, an organization that resulted from the API & NFPA via merger) launched a process to "visibly improve industrial practices and report results." That process led to the creation of the original *SFI Principles and Implementation Guidelines.*

The 1995 establishment of an External Review Panel (ERP), originally called the Expert Review Panel, formalized stakeholder involvement, as eighteen leading natural resources

professionals from government agencies, conservation groups and academic institutions provided their review to the SFI program. (For more information about the ERP, visit http://www.abouterp.org

Since its creation, one of the foundations of the SFI program has been continual improvement. In 1998, the SFI program's original *Principles and Implementation Guidelines* were modified to create a standard. Later that year, the SFI program added options that allowed first-, *second-*, and *third-party (certification)* approaches for *Program Participants* to declare their conformance with the *Sustainable Forestry Initiative Standard (SFIS).*

Early versions of the SFI program included input from non-industrial landowners, logging professionals, conservation group leaders, leading academicians and researchers. Each succeeding round of program modifications and enhancements has included ever-expanding processes to solicit comment and input from interested third-party stakeholders and the public.